Art Unit: 2121

#### DETAILED ACTION

1. The following is a Supplemental Notice of Allowance After Examiner's

Amendment in response to the Amendment After Notice of Allowance received on

25 February 2010. Claims 1-29 have been previously cancelled. Claims 30 and 31

have been cancelled. Claims 32 and 33 have been added. Claims 32 and 33 are now
pending in this application.

#### EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

### IN THE SPECIFICATION:

Page 1 line 1, deleted "System" and inserted -- Method--.

Page 1 line 3, inserted -- This application is the national phase under 35 USC 371 of PCT International Application No. PCT/CA03/001312 which has an International filing date of August 29, 2003, which designated the

Art Unit: 2121

United States of America, the entire contents of which are hereby incorporated by reference.-- before "Field of Invention."

#### REASONS FOR ALLOWANCE

- 3. Claims 32 and 33 are allowed.
- 4. The following is an examiner's statement of reasons for allowance:

As per claim 32, the prior art of record taken alone or in combination fails to teach restricting transformation/rotation angle to maximum -48° in determining transformed real and reactive power mismatch and performing loadflow calculation by solving a Super Super Decoupled Loadflow model of the power network defined by the set of equations employing successive iteration scheme, wherein each iteration involves one calculation to update voltage angle vector and then one calculation to update voltage magnitude vector, to calculate values of the voltage angle and the voltage magnitude at PQ-nodes, voltage angle and reactive power generation at PV-nodes, and turns ratio of tap-changing transformers in dependence on the set of said obtained-online readings, or given/scheduled/specified/set values of controlled variables/parameters and physical limits of operation of the network components.

Art Unit: 2121

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Priority

5. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has complied with the conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 365(c).

#### Information Disclosure Statement

6. The latest version of the specification received on 3 March 2006 corrects the deficiencies of the specification received by the International Bureau on 28 July 2004. The references cited by the examiner on form PTO-892 have been considered.

Art Unit: 2121

#### Oath/Declaration

7. The oath or declaration is NOT defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is NOT required.

The oath or declaration is NOT defective because:

The Notification of Withdrawal of Priority Claim has been received on 17 November 2009.

## Drawings

8. The replacement drawings were received on 17 November 2009. These drawings are acceptable.

# Specification

9. The latest version of the specification received on 3 March 2006 corrects the deficiencies of the specification received by the International Bureau on 28 July 2004 by deleting the references and overcomes the objection to the specification.

Application/Control Number: 10/570,023

Art Unit: 2121

### Conclusion

Page 6

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to electrical power system regulation:

- Patel, S.B., "Fast super decoupled loadflow," <u>IEEE Proceedings on</u>

  <u>Generation, Transmission and Distribution</u>, Volume 139, Issue

  1, January 1992, Page(s): 13 20.
- Patel, S.B., "Transformation Based Fast Decoupled Loadflow," <u>IEEE</u>

  <u>Region 10 International Conference on EC3-Energy, Computer,</u>

  <u>Communication and Control Systems</u>, Volume 1, August 28-30,

  1991, Page(s): 183 187.
- Van Amerongen, R.A.M., "A general-purpose version of the fast decoupled load flow," <u>IEEE Transactions on Power Systems</u>,

  Volume 4, Issue 2, May 1989, Page(s): 760 770.
- Allan, R.N. et al. "LTC Transformers and MVAR Violations in the Fast Decoupled Load Flow," <u>IEEE Transactions on Power Apparatus</u>

Art Unit: 2121

and Systems, Volume PAS-101, Issue 9, September 1982,

Page(s): 3328 - 3332.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes-Bullock whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571.272.3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to

Art Unit: 2121

the automated information system, call 800-786-9199 (IN USA OR CANADA) or

571-272-1000.

/Crystal J. Barnes-Bullock/ Primary Examiner, Art Unit 2121 10 May 2010